

REMARKS

Reconsideration of the present application is requested. Claims 32-34 have been added. Claims 1-34 are pending, with claims 24-31 being withdrawn from consideration.

ALLOWABLE SUBJECT MATTER

Applicants appreciate the Examiner's indication of the allowable subject matter defined by claims 5, 7 and 22. By way of this response, Applicants have added claims 32-34, which essentially correspond to claims 5, 7 and 22 rewritten in independent form.

ELECTION REQUIREMENT

Applicants acknowledge the finality of the Restriction Requirement and the withdrawal of claims 24-31 from further consideration. Applicants further acknowledge the Examiner's indication that claim 1 is generic to all of species I - IV. Although amended, claim 1 remains generic to all of species I - IV. Upon allowance of claim 1, Applicants request rejoinder of claims 24-31.

INFORMATION DISCLOSURE STATEMENTS

Applicants appreciate the consideration of the Information Disclosure Statements filed March 30, 2004, February 2, 2005, August 5, 2005 and March 8, 2007.

PRIORITY DOCUMENTS

The Office Action indicates that none of certified copies of the priority documents have been received. As evidenced by the stamped postcard attached hereto, Applicants filed a Priority Letter along with a certified copy of

priority document 10-2003-0037137 on January 14, 2005. Accordingly, Applicants request the Examiner re-check the file and indicate whether such a Priority Letter and Priority Document are of record in the file.

PRIOR ART REJECTIONS

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejects claims 1-4, 6, 8-21 and 23 under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,943,099 ("*Kim*").

Applicants traverse this rejection.

In the conversion device of *Kim*, a correlator 130 detects a motion correlation DM, a vertical direction correlation DV and a temporal-vertical correlation DT from the input interlaced image signal. The correlations DM, DV and DT are output to a selector 140. The selector 140 compares the motion correlation DM, the vertical correlation DV and the temporal-vertical correlation DT with predetermined constants TM, T1 and T2, respectively. The selector 140 selects one of a spatially interpolated signal IS output from the spatial interpolator 110 or a temporally interpolated signal IT output by the temporal interpolator 120 based on the compared results. The selected signal is output by the selector 140 as an interpolated signal Vout.

The method of claim 1 recites, "receiving a control command to perform one of at least two interlaced-to-progressive conversion (IPC) techniques on input interlaced scan data, the control command being generated based on video information associated with the input interlaced scan data, the video information indicating at least whether the interlaced scan data is frame based

or field based interlaced scan data," and "performing the IPC technique instructed by the received control command on the input interlaced scan data." *Kim* discloses no such method.

Contrary to the method of claim 1, in the conversion device of *Kim*, the selector 140 selects one of a spatially interpolated signal IS or a temporally interpolated signal IT based on a comparison between motion correlation DM, vertical correlation DV and temporal-vertical correlation DT with predetermined constants. The motion correlation DM is a measurement for estimating whether the motion is generated in the neighborhood of the position of a sample which is to be restored by interpolation.¹ The vertical correlation DV is indicative of a vertical correlation difference between consecutive sample data.² The temporal-vertical correlation is indicative of the correlation between the temporal interpolation and the vertical interpolation. None of the correlations DM, DV or DT, however, are indicative of "whether the interlaced scan data is frame based or field based interlaced scan data," as required by claim 1. Therefore, *Kim* fails to teach or fairly suggest at least, "receiving a control command to perform one of at least two interlaced-to-progressive conversion (IPC) techniques on input interlaced scan data, the control command being generated based on video information associated with the input interlaced scan data, the video information indicating at least whether the interlaced scan data is frame based or field based interlaced scan data," and "performing the IPC

¹ *Kim* at 6:12-6:17.

² *Id.* at 6:18-6:32.

technique instructed by the received control command on the input interlaced scan data," as required by claim 1.

For at least the foregoing reasons, claim 1 is patentable over *Kim*. Claim 8 is patentable over *Kim* for at least reasons somewhat similar to those set forth above with regard to claim 1. Claims 2-4 and 6 are patentable over *Kim* at least by virtue of their dependency from claim 1. Claims 9-21 and 23 are patentable over *Kim* at least by virtue of their dependency from claim 8.

NEW CLAIMS

As discussed above, Applicants have added new claims 32-34, which essentially correspond to claims 5, 7 and 22 rewritten in independent form, respectively. Allowance of these new claims is requested.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-34 in connection with the present application is earnestly solicited.

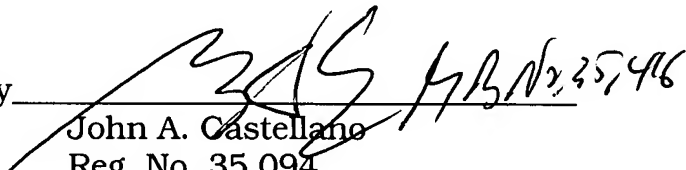
If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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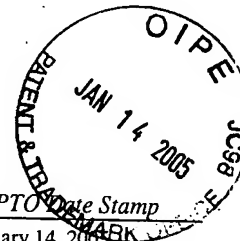
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Applicant: Tae-Sun KIM et al.	Case No.: 2557-000196/US
Serial No.: 10/811,993	Filing Date: March 30, 2004
Title: SCANNING CONVERSION APPARATUS AND METHOD	

Please acknowledge receipt of:

- Transmittal
- Priority Document with Priority Letter
- Letter to the Official Draftsperson with eleven (11) sheets of formal drawings



By stamping and returning to Harness, Dickey & Pierce, P.L.C.

Due: N/A

Attorney: GDY:jcp

USPTO Date Stamp
f. January 14, 2005

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